

**Diagnosis and Treatment of Vascular Disease**

**ABSTRACT**

5           The present invention is based at least in part on the discovery of polymorphisms within the phospholipase C gamma 1 (PLCG1) gene and the plasminogen activator inhibitor type 2 (PAI-2) gene. Accordingly, the invention provides nucleic acid molecules having a nucleotide sequence of an allelic variant of a PLCG1 or PAI-2 gene. The invention also provides methods for identifying specific alleles of polymorphic regions of a PLCG1 or PAI-2 gene, methods for determining whether a subject is or is not at risk of developing a disease which is associated with a specific allele of a polymorphic region of a PLCG1 or PAI-2 gene, e.g., a vascular disease, based on detection of polymorphisms within the PLCG1 or PAI-2 gene, and kits for performing such methods. The invention further provides methods for classifying a subject who is or is not at risk for developing, a vascular disease or disorder as a candidate for a particular clinical course of therapy or a particular diagnostic evaluation. The invention further provides methods for selecting a clinical course of therapy or a diagnostic evaluation to treat a subject who is or is not at risk for developing, a vascular disease or disorder.

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